

AMENDMENTS TO THE CLAIMS

1. (Canceled)
2. (Canceled)
3. (Currently Amended) A method for to developing a sub-sea hydrocarbons field, the method comprising:

producing hydrocarbons from the sub-sea field, wherein the produced hydrocarbons comprise natural gas and oil;
permanently separating the natural gas from the produced hydrocarbons;
conveying the separated natural gas to a vessel;
conveying the remaining produced hydrocarbons to a rigid storage tank on the seabed;
liquefying the separated natural gas aboard a the vessel using a liquid coolant aboard the vessel to obtain liquefied natural gas;
transporting the liquefied natural gas to an onshore a remote terminal;
re-gasifying the liquefied natural gas at the remote terminal; and
using an energy of the re-gasification of the liquefied natural gas to obtaining a new batch of liquid coolant using energy recovered from the re-gasifying the liquefied natural gas;
de-gasifying hydrocarbons obtained from the sub-sea hydrocarbons field to produce oil and separated gas; and
conveying the separated gas to the vessel and the produced oil to a storage tank on a seabed.
4. (Previously presented) The method of claim 3, wherein the separated gas is conveyed to the vessel via a riser.
5. (Previously presented) The method of claim 3, further comprising:
pre-treating the separated gas before liquefying.
6. (Canceled)

7. (Previously Presented) The method of claim 3, further comprising:
liquefying a new batch of natural gas using the new batch of liquid nitrogen aboard the vessel.
8. (Currently Amended) The method of claim 3, further comprising receiving an initial portion of the liquefied natural gas into at least one empty tank of a plurality of liquefied gas storage tanks aboard the vessel wherein one of a plurality of storage tanks aboard the vessel is empty to receive an initial portion of the liquefied natural gas.
9. (Currently Amended) The method of claim 3, wherein the re-gasifying the liquid natural gas is performed at the onshore remote terminal.
10. (Previously Presented) The method of claim 3, wherein re-gasifying the liquefied natural gas produces high pressure gas.
11. (Original) The method of claim 10, further comprising:
sending the high pressure gas to a pipeline.
12. (Currently Amended) The method of claim 3, wherein transporting the liquefied natural gas to the onshore remote terminal is performed using the vessel.
13. (Currently Amended) A system ~~for to~~ developing an oil and gas field, the system comprising:
a sub-sea separation system configured to permanently de-gasify natural gas from hydrocarbons produced from the oil and gas field, wherein the separation system is configured to produce separated oil and separated natural gas;
a vessel configured to liquefy the separated natural gas to obtain liquefied natural gas using liquid nitrogen stored aboard the vessel; and
a an onshore remote terminal configured to obtain a new batch of liquid nitrogen using refrigeration recovered from re-gasifying the liquefied separated natural gas; and
a sub-sea separation system configured to de-gasify hydrocarbons to produce oil and separated gas.

14. (Currently Amended) The system of claim 13, further comprising: a natural gas conveyance system configured to:

use a riser to convey the separated natural gas separated from the sub-sea separation system to the vessel through a riser; and

convey the separated oil produced from the sub-sea separation system to a rigid sub-sea storage tank.

15. (Currently Amended) The system of claim 14, further comprising:
a natural gas pre-treating facility configured to treat the separated natural gas.

16. (Original) The system of claim 14, further comprising:
a power and control buoy configured to provide electric power and control functions for the sub-sea separation system.

17. (Currently Amended) An apparatus ~~for to~~ developing a sub-sea hydrocarbons field, the apparatus comprising:

a means for producing hydrocarbons comprising natural gas and oil from the sub-sea field;

a means for permanently separating the natural gas from the produced hydrocarbons;

a means for conveying the separated natural gas to a vessel;

a means for conveying the remaining produced hydrocarbons to a rigid storage tank;

a means for liquefying the separated natural gas aboard a vessel using liquid nitrogen aboard the vessel to obtain liquefied natural gas;

a means for transporting the liquefied natural gas to an ~~onshore~~ a remote terminal;

a means for re-gasifying the liquefied natural gas at the remote terminal; and

a means for obtaining a new batch of liquid nitrogen using energy recovered from the re-gasifying the liquefied natural gas

a means for de-gasifying hydrocarbons obtained from the sub-sea hydrocarbons field to produce oil and separated gas; and

a means for conveying the produced gas to the vessel and the produced oil to a storage tank on-the seabed.

18. (Currently Amended) The method of claim 3, comprising:
~~transporting a new batch of liquid coolant offshore aboard the vessel using a plurality of storage tanks; wherein the new batch of liquid coolant comprises liquid nitrogen.~~